

Core Activation

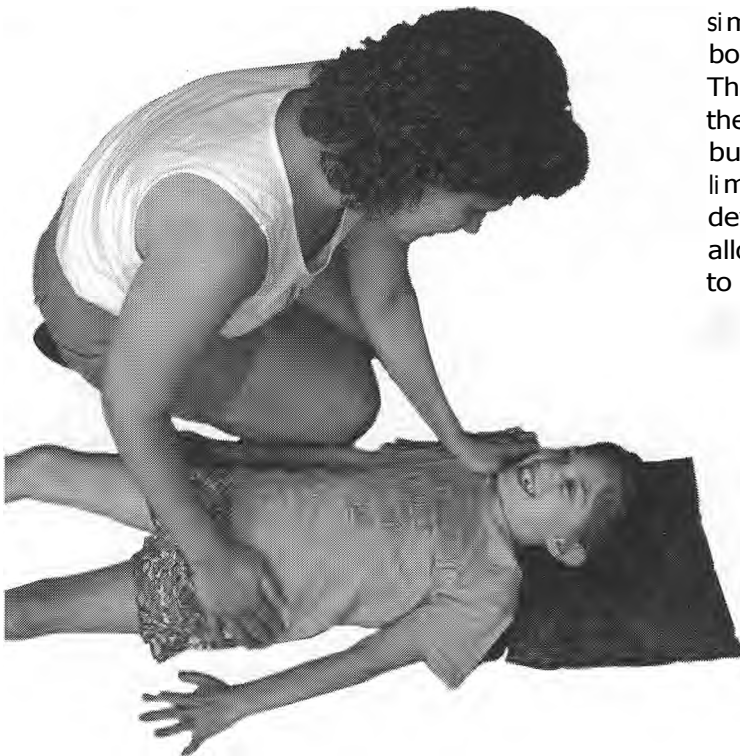
The core muscles — the inner muscles of the trunk of the body — are important contributors to bodily balance. The brain/body connections between hips and shoulders and the upper and lower body generally have the ability to move freely and activate in all directions. The action of moving in all directions alerts the vestibular system, which stimulates the Reticular Activating System (RAS), which in turn "wakes up" the brain for incoming sensory input. Since learning and memory are based on our ability to make patterns from sensory input, it follows that the core muscles need to be "switched on." Nerve nets to the core muscles elaborate and myelinate from use. In typical motor development, we move from reflexes to core muscle activation to motor exploration (i.e. rolling over, sitting, crawling and walking.) The exploration of the core muscles is a major building block for future movement patterns.

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The following developmental sequence is done in a rhythmical way using the front/back of the body at the shoulders and the hips. The first set of sequences supports homologous movement,* an awareness of the top and bottom of the brain/body system. The second set of sequences supports homolateral** movement using one side at a time. The facilitator places her hands on the shoulders/hips and tells the child to push against the offered resistance. The third set of sequences assists in further integration using opposite combinations.

***Homologous Movement Pattern** is the simultaneous flexion or extension of both arms and/or both legs together. These movement patterns underlie the quadruped posture and assist us in building strength to bear weight on our limbs. They support and stimulate the development of the Midbrain (limbic) and allow us to move out into space. This leads to the development of relationships.

****Homolateral Movement Pattern** is movement of the limbs in which the arm and leg on the same side of the body flex or extend together. Each side of the Neocortex is stimulated individually. This movement underlies our ability to differentiate our left side from our right side, as well as mouth/eye/hand coordination. It is the foundation for how we reach out toward our goals — objects, people and ideas.



Core Activation Procedure:



A Arm Activation can be used to wake up the upper body for Core Activation.

Active: The response is activated by the student. The facilitator may say, "Push into my hand and meet my resistance." If the child does not resist with her shoulders, then Arm Activation can be done; If the child does not resist with her hips, then Pelvic 8s can be done. After doing Arm Activation or Pelvic 8s, return to Core Activation.

Passive: The student is receptive while the facilitator activates a response.

The active or passive core activation can be done in any position: standing, sitting, lying or even moving about. The sequence presented here is developmental. However, any combination can be done in a rhythmical y. Our goal is to create awareness.



A Pelvic 8s can be used to activate the hips for a better response to Core Activation.

Developmental Sequence for Core Activation

Step 1: Push then pull...



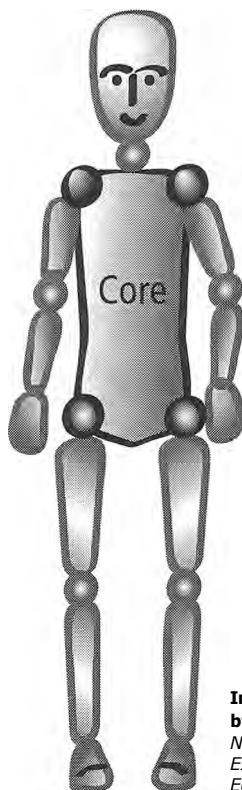
Each shoulder and hip individually

Shoulders simultaneously then hips simultaneously



Right shoulder and hip simultaneously, then left shoulder and hip simultaneously

Right shoulder and left hip simultaneously, then left shoulder and right hip simultaneously



Step 2: Push while pulling...

Push on one shoulder while pulling on the other. Switch, then do the same with hips



Push on right shoulder while pulling on the right hip. Switch, then do the same with the left side

Push on right shoulder while pulling on the left hip. Switch, then do the same with the other shoulder and hip



Information gathered from: *Sensing, Feeling and Action*, (1995) by Bonnie Bianbridge Cohen; *Smart Moves: Why Learning is Not All In Your Head*, (1995) by Carla Hannaford; *Movement Exploration Student Manual*, (1997) by Carol Ann Erickson; *Edu-K In Depth Student Manual*, (1995) by Paul E. Dennison, Ph.D. and Gail Dennison.